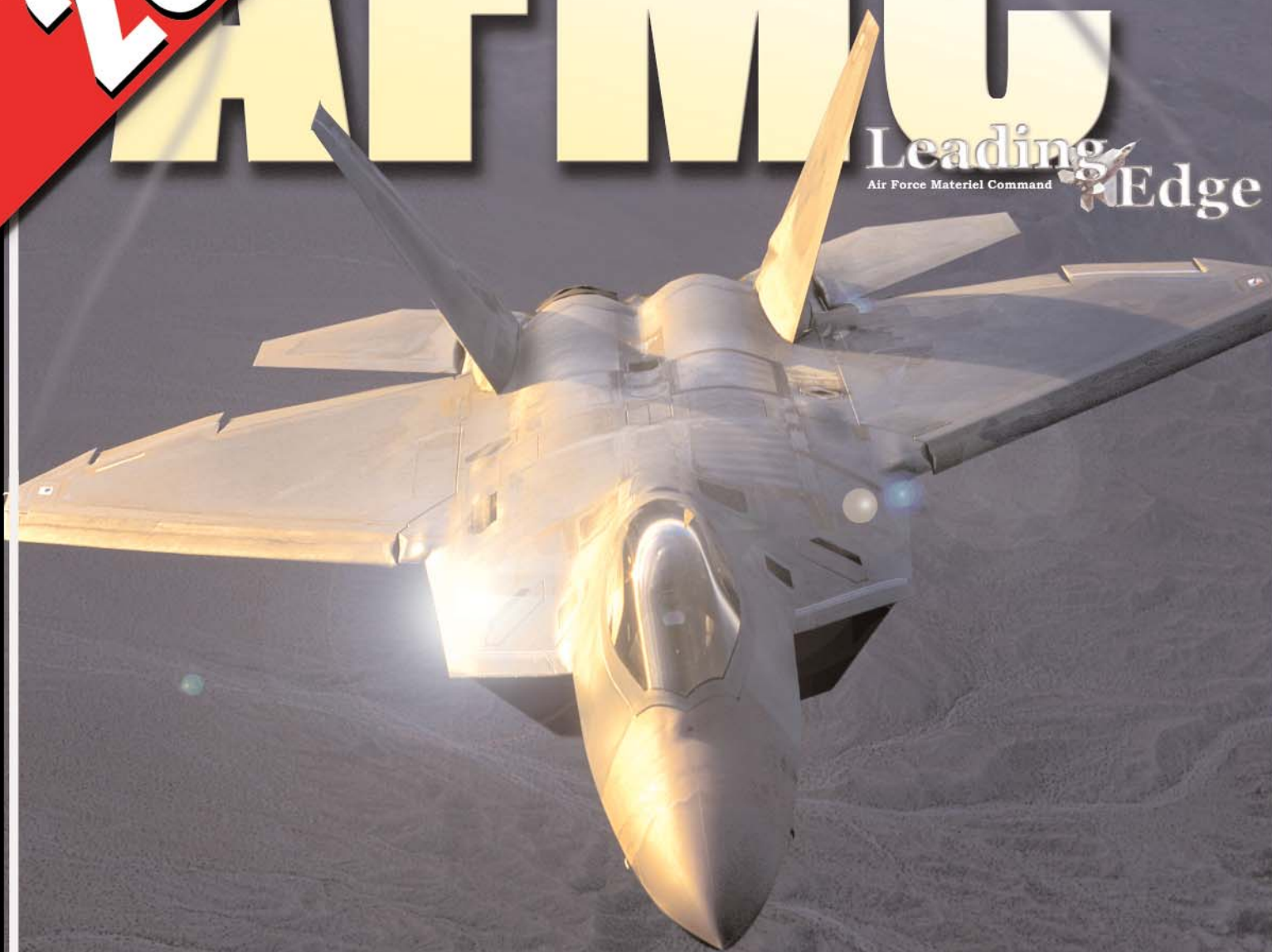


2005

A F M C

Leading
Air Force Materiel Command  Edge



STATE OF THE COMMAND

AFMC DELIVERS:

War-winning capabilities ...
on time, on cost



STATE OF THE COMMAND

Headquarters
**Air Force Materiel
Command**
Wright-Patterson
Air Force Base, Ohio

Commander
**Gen. Gregory S.
Martin**

Vice Commander
**Lt. Gen. Richard V.
Reynolds**

Executive Director
Mr. Robert J. Conner

Command Chief Master
Sergeant
**Chief Master Sgt.
Jonathan E. Hake**

State of the Command
Development Team
**Mr. Marc Mazza
Mr. Larry Trittschuh
Mr. Gregory Saunders
Maj. Chris Carroll**

State of the Command
Design Team
**Capt. Danielle
Burrows
1Lt Tracy Page
1Lt Timothy
Lundberg**

4 AFMC in 2004

Develop and transition
technology to maintain air, space,
and information dominance

6 Technology

Develop, field, and sustain
war-winning expeditionary
capabilities on time, on cost

8 Develop

9 Field

10 Sustain

Provide opportunities for
career development and
progression

11 Career

Operate quality **installations**

12 Installations

Sustain a healthy, fit, safe, and
ready **workforce**

13 Workforce

14 Where We're Headed



7 JHMCS; first-look, first-shot, first-kill



8 Small Diameter Bombs are set to have a huge impact on future operations



12 AFMC personnel ensure the security of our installations

AFMC Quick Facts

Personnel

Enlisted: 16,231
Officer: 7,176
AF Civilian: 57,659

Budget

\$43.4 Billion

Flying Hours

1,600 per month



AFMC Bases

Arnold AFB, TN
Brooks City-Base, TX
Edwards AFB, CA
Eglin AFB, FL
Hanscom AFB, MA
Hill AFB, UT
Kirtland AFB, NM
Robins AFB, GA
Tinker AFB, OK
Wright-Patterson AFB, OH

AFMC in 2004

★★★★ Gen. Gregory S. Martin



The more than 80,000 magnificent men and women assigned to Air Force Materiel Command provide “cradle-to-grave” management of every Air Force weapon system!

That includes all aircraft across the fighter, bomber, tanker, transport, Unmanned Aerial Vehicle (UAV), and special purpose fleets; all armaments and munitions employed by the Air Force or dispensed from any Air Force aircraft; and finally, all Command, Control, Communications, Computer, and Intelligence, Surveillance, Reconnaissance (C4ISR) systems worldwide.

The people of our great Command touch every other Air Force Major Command through the development, acquisition, test & evaluation, sustain-

ment, and eventual retirement of these Air Force weapon systems. This State of the Command report is about our achievements over the past year — what we promised and, more importantly, what we delivered.

As I assumed command of AFMC in August 2003, it was clear that our military members and Air Force civilians were motivated and enthusiastic about what they were doing to support the United States Air Force and our Nation.

After traveling throughout the Command over the next few months and learning more about the size of the organization and the diversity of our missions, it became clear that there is nothing more critical than clearly communicating what we want to accomplish in a way that every member of the

Command can understand and execute.

We developed what we call our Strategic Principle: ***War-winning capabilities ... on time, on cost*** to clearly communicate our direction. It’s our moniker; it’s the statement that appears on our stationery; it’s what we live by; it’s the overarching guide we use to make decisions across the Command; it’s what every Airman and Air Force civilian in AFMC must know, understand, and strive to achieve.

We then defined our AFMC Vision — what we want for every member of our great Command ... and what we will become if we achieve our Strategic Principle: ***To be a valued team member ... of the world’s most respected Air and Space Force.***

The Air Force is the world’s most respected Air and Space Force because of its people, its technology, and its capabilities. Every member of AFMC should feel appreciated and valued based on his or her outstanding contributions to our Nation.

Next we focused on the AFMC Mission — the reason we exist as a Major Command in the United States Air Force: ***Deliver war-winning expeditionary capabilities to the warfighter.***

We deliver war-winning expeditionary capabilities by providing the Air Force with cutting-edge technology, professional acquisition support personnel, and highly competent sustainment professionals with the right infrastructure.

Our mission describes what we do ... in order to know how we’re doing, it is essential to develop goals and standards against which we measure our performance.

We developed our Command Goals — the few critical areas where we must focus our day-to-day efforts:

- ◆ Develop and transition technology to maintain air, space, and information

— Strategic Principle —

War-winning capabilities ... on time, on cost

— Vision —

To be a valued team member ... of the world’s most respected Air and Space Force

— Mission —

Deliver war-winning ...

— Technology

— Acquisition Support

— Sustainment

... expeditionary capabilities to the warfighter

dominance

- ♦ Develop, Field, and Sustain war-winning expeditionary capabilities on time, on cost
- ♦ Provide opportunities for career development and progression
- ♦ Operate quality installations
- ♦ Sustain a healthy, fit, safe, and ready workforce

Everything we do in AFMC maps to one of these goals. They address our core mission activities, our installations, and our people. They focus our efforts on what is most important.

Our Strategic Principle, Vision, Mission, Goals, and related performance measures provide a solid foundation for our Command going forward, but we must also focus on our more long-term Strategic Plan. We began that effort in August 2004 and expect to implement our initial AFMC Strategic Plan by February 2005 in time to influence work on the Fiscal Year 2007 Amended Program Objective Memorandum.

We essentially built the framework for our AFMC Strategic Plan using the Balanced Scorecard toolset. At the very top of the framework is our Vision. Underpinning the Vision is our

Strategic Principle.

To achieve our Strategic Principle and, ultimately, our Command Vision, the AFMC Strategic Plan will focus on five themes which align with our AFMC Goals.

We have much work still to do, but we are committed to developing an AFMC Strategic Plan that is clear, that touches everyone from the most senior leader to the apprentice on the shop floor, that drives resource allocation decisions, and most importantly, that is executable.

In the next few pages we'll focus on what we said we were going to do in AFMC in 2004 — as represented by our AFMC Goals, and then we'll discuss what we did — in terms of our accomplishments and successes in support of those AFMC Goals.

As you begin to read through this document, let me reiterate the pride I feel in serving with the more than 80,000 men and women whose efforts make our AFMC Goals a reality.

Behind every accomplishment and success you'll read on subsequent pages are AFMC people. I attribute AFMC's success over the past year to the great people of this Command.

— Goals —

- ♦ Develop and transition technology to maintain air, space, and information dominance
- ♦ Develop, Field, and Sustain war-winning expeditionary capabilities on time, on cost
- ♦ Provide opportunities for career development and progression
- ♦ Operate quality installations
- ♦ Sustain a healthy, fit, safe, and ready workforce

Special tactics combat controllers behind enemy lines use the Battlefield Air Operations (BAO) Kit to identify and locate targets and transmit the data to the air operations center for target approval and relay to strike aircraft. Air Force Research Lab scientists assigned to the BAO Kit program evaluated the use of off-the-shelf laptops, wireless networks, image compression algorithms, and small camera-equipped Unmanned Aerial Vehicles to enhance ground and aircrew situational awareness and engage time-critical targets. ASC, ESC, and AFRL are working additional development spirals to increase communications, situational awareness, and flexibility through the removal of cables, and for additional use of small Unmanned Aerial Vehicles for targeting. (Courtesy Photo)

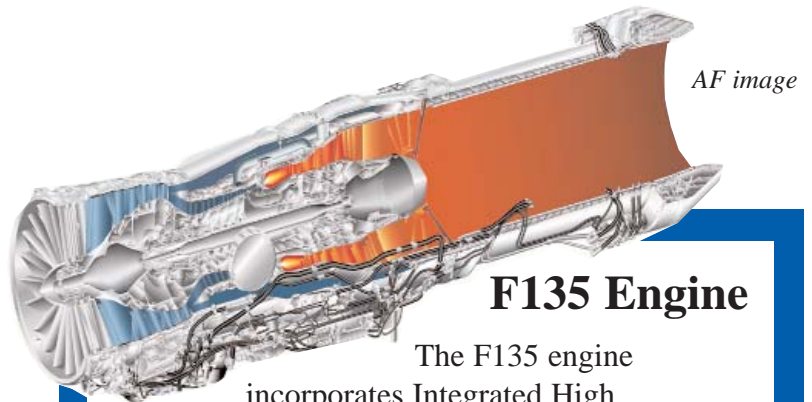


TECHNOLOGY

Goal: Develop and transition **TECHNOLOGY** to maintain air, space, and information dominance

Our Accomplishments

- ◆ Improved operational readiness — increased performance of F/A-22 and F-35 engines
- ◆ Sustained B-52 operations — provided counter-fatigue strategies to prepare pilots for 30+ hour missions during Operation Iraqi Freedom
- ◆ Improved laser eye protection — equipped Air Combat Command and Air Mobility Command aircrews for Global War on Terrorism threats
- ◆ Demonstrated Advanced Tactical Directed Energy System (ATADS) laser component for infrared countermeasure (IRCM) applications — robust, low-cost, compact semiconductor-based laser provides increased countermeasure capability
- ◆ Demonstrated improved air-to-ground high-resolution radar, automated cueing/classification system for use in tactical fighter aircraft — will improve accuracy of AF weapons



F135 Engine

The F135 engine incorporates Integrated High Performance Turbine Engine Technology (IHPTET) to increase the F-35 Joint Strike Fighter's persistence. AFRL is applying technology lessons learned on the F/A-22's F119 engine to increase the F-35's range and endurance. In 2004 AFRL work for the F-35 included combined core and engine demonstrations that indicated implementation of F135 engine improvements. This included achievement of: (1) 100% thrust requirement; (2) 244 pounds weight avoidance; and (3) \$315K production cost avoidance. This will result in an F-35 weapon system that has increased endurance, acceleration, maneuverability, and availability — increasing the AF's overall combat capability.

Vector Check: Active Denial System (ADS)

The Active Denial System (ADS) is a non-lethal, counter-personnel directed energy weapon that uses breakthrough technologies to provide unprecedented capabilities.

ADS projects a focused, speed-of-light millimeter-wave energy beam to induce an intolerable heating sensation on an adversary's skin and cause that individual to be repelled without injury. ADS will enable US forces to stop, deter and turn back an advancing adversary without applying lethal force. This capability is expected to save countless lives. Non-lethal technologies can be used for protection of defense resources, peacekeeping, humanitarian

missions and other situations in which the use of lethal force is undesirable.

The Air Force Research Laboratory's Directed Energy Directorate at Kirtland AFB, NM, is the technical manager and responsible for the ADS prototype development. The Laboratory's Human Effectiveness Directorate at Brooks City-Base, TX, manages the human effects characterization research and test program. Electronic Systems Center at Hanscom AFB, MA, is the transition manager responsible for the transition of the system into the formal DoD acquisition process, should the decision be made to equip US forces with ADS.

Vector Check: Joint Helmet Mounted Cueing System (JHMCS)

The Air Force continued to revolutionize fighter attack combat operations in 2004 by tripling the number of operational JHMCS-equipped aircraft. JHMCS gives the pilot real-time “Heads-Up Display (HUD) on the head” capability and allows high off-bore-sight targeting with aircraft weapons and sensors. This provides significant improvements in both air-to-air and air-to-ground combat missions.

In 2004, JHMCS was operationally fielded for the first time on Block 52 F-16s at Shaw AFB, SC. Three additional Block 52 F-16 JHMCS squadrons were stood up at McEntire ANG Station, SC, Spangdahlem AB, Germany, and Misawa AB, Japan. JHMCS modifications were completed on the F-15C/D at Elmendorf AFB, AK. Modifications then began for additional squadrons at Lakenheath AB, England, and Mountain Home AFB, ID. The system continues its outstanding field performance: “JHMCS offers an exponential increase to the combat capability of our



The JHMCS gives our pilots a real-time heads-up display in the helmet and provides our pilots with a decisive first-look, first-shot, first-kill advantage (Image courtesy of Boeing Corp.)

F-15Cs,” said the 3rd Fighter Wing commander, Elmendorf AFB. Additionally, the U.S. Navy continued its deployment of JHMCS on the F/A-18E/F, standing up an additional six JHMCS squadrons in 2004 in addition to VFA-14 and VFA-41, which first demonstrated JHMCS capability in Operation Iraqi Freedom. During 2004, the Navy made significant progress on developing a dual seat JHMCS capability for F/A-18D/F/G. Both services continue to pursue an integrated night vision cueing capability.

JHMCS is the most significant F-15C improvement in many years in the “within visual range” arena. It provides look and shoot capability for AIM-9X and other air-to-air weapons, giving F-15C pilots a decisive first-look, first-shot, first-kill advantage. Thirty-two installations were completed in 2004, bringing the total complete to 75 of 179. JHMCS is a capability leap for the United States’ continued air superiority.



AF graphic

DEVELOP

Goal: **DEVELOP**, Field, and Sustain war-winning expeditionary capabilities on time, on cost

Our Accomplishments

- ◆ F-15 dual-band UHF/VHF radio — provided increased communication capabilities and increased range
- ◆ Improved F-15 radar, APG-63(V)1 — enhanced combat capability; reliability exceeded specifications
- ◆ F-16 Common Configuration Implementation Program modification — state-of-the-art digital avionics improved survivability and lethality by 40%
- ◆ Selective Availability Anti-Spoofing Module — more accurate and durable navigation system for F-15 weapon delivery and targeting systems; increased mean time between failure (MTBF) from 90 hours to 6000+ hours
- ◆ Joint Tactical Radio System to provide interoperable capability with all US, Allied and Coalition forces; contract awarded for development and demonstration
- ◆ Multi-Platform Radar Technology Insertion Program — improved radar capability for E-10A and Global Hawk

Vector Check: Small Diameter Bomb (SDB)

Imagine how much it would cost to quadruple the number of USAF fighters and bombers ... now imagine having the ability to create the same warfighting effect by carrying four times the number of bombs per aircraft instead of acquiring more aircraft. That vision will soon be reality due to the development of the Small Diameter Bomb (SDB).

AFMC promised to deliver the SDB to the Combat Air Forces by December 2006. We are on track to meet this promise and field this new weapon. The SDB can be fired from over 40 miles away and will strike its intended target within feet, minimizing collateral damage.

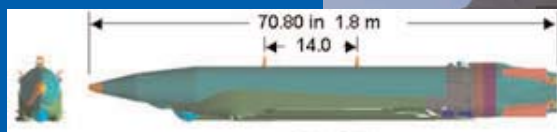
Developing a new weapon system is a complicated process that incorporates many AFMC processes: science and technology, acquisition support, acquisition logistics, and test and evaluation. Development of the highly accurate SDB was supported by the F-15 and SDB program offices and their respective test teams. Support included fit checks, captive carry, jettison, and five guided weapon employment missions. These teams maintain close coordination to ensure the Required Assets Available (RAA)

date of October 2006 is met. The SDB is an excellent example of the work being performed by AFMC personnel to deliver war-winning expeditionary capabilities to the warfighter.



The SDB can be loaded onto most current aircraft and all future aircraft. Here two SDBs are loaded into a B-1B during a recent test. (Photos courtesy of Boeing Corp.)

One of the great advantages of the SDB is the increased number an aircraft is capable of carrying. This vastly increases the targets an aircraft can strike in a single sortie.



The SDB will have a huge impact on future operations.

Goal: Develop, **FIELD**, and Sustain war-winning expeditionary capabilities on time, on cost

Vector Check: F/A-22 Raptor

A FMC professionals are helping to field a transformational weapon system, the F/A-22 Raptor. The F/A-22 combines the best attributes of current fighter aircraft with stealth, maneuverability, and supercruise. Combine these attributes with the Raptor's avionics system, which integrates data from several sources for the pilot to view on one easy-to-read display, and you have an aircraft that gives pilots an unmatched first-look, first-shot, and first-kill capability.

"The Raptor brings on the next generation of applying technology to warfighting, putting our aircraft two generations ahead of any threat and removing us from our current status of weapons system parity," said Brig. Gen. Larry New, former 325th Fighter Wing commander, Tyndall AFB, FL.

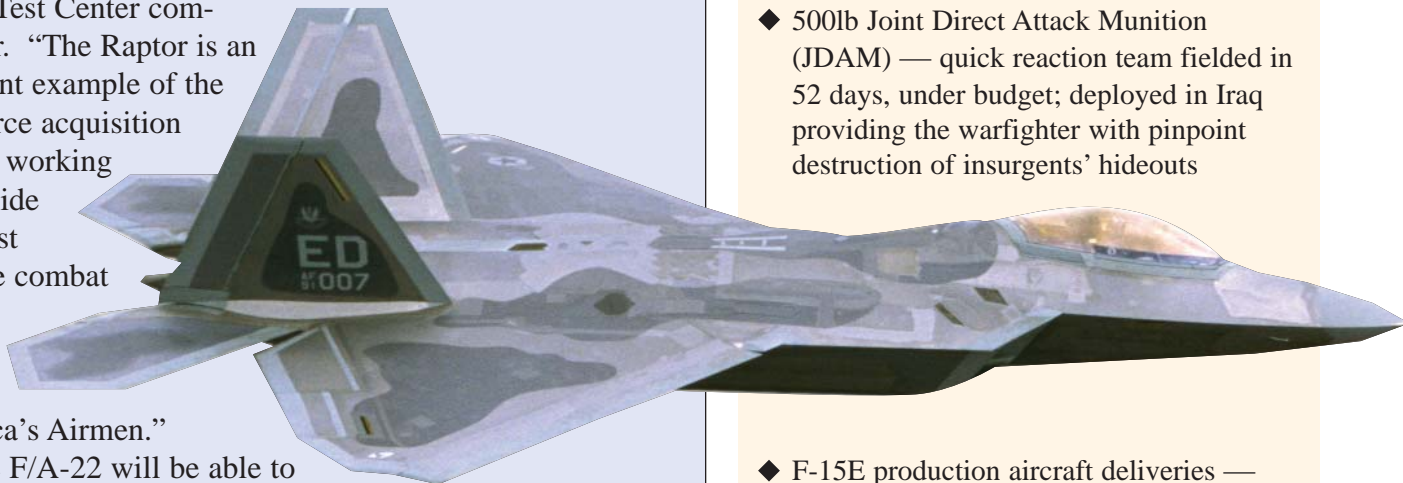
Operational testing on the Raptor began April 29, 2004, when the first two-ship sortie was flown at Edwards AFB, CA. "Transitioning to the initial operational test and evaluation of the F/A-22 is a much anticipated and extremely important event for the Department of Defense," said Maj. Gen. Wilbert D. "Doug" Pearson Jr., former Air Force Flight Test Center commander. "The Raptor is an excellent example of the Air Force acquisition system working to provide the most capable combat equipment to America's Airmen."

"The F/A-22 will be able to conduct both air-to-air and air-to-ground operations when it reaches Initial Operational Capability, currently planned for December 2005," said Maj. Gen. Rick Lewis, Program Executive Officer for the F/A-22 Program.

The Raptor is just one more example of AFMC's effort to deliver war-winning expeditionary capabilities to the world's most respected Air and Space Force.

Our Accomplishments

- ◆ Shortened the time required to field a crucial C-17 missile warning system that warns pilots of an approaching missile and automatically fires flares to confuse the missile's guidance system — testing completed in weeks instead of months
- ◆ NASA's Return to Flight Program relied on AFMC test facilities — credible and accurate results during on-going foam wind tunnel tests and ballistic impact measurements; will ensure safe return to flight for the Shuttle
- ◆ Norwegian air defenses needed to prove the Advanced Medium Range Air-to-Air Missile (AMRAAM) in a surface firing mode — successfully fired an air defense missile only nine weeks after the need was identified; testing occurred on-time despite Hurricane Ivan's destructive effects
- ◆ 500lb Joint Direct Attack Munition (JDAM) — quick reaction team fielded in 52 days, under budget; deployed in Iraq providing the warfighter with pinpoint destruction of insurgents' hideouts
- ◆ F-15E production aircraft deliveries — AF took delivery of four F-15E aircraft in 2004; delivered to 48 FW, Lakenheath AB, England; the most capable F-15Es in the AF inventory; included new capabilities: PACS-45 programmable armament control set, enhanced night vision cockpit, latest operational flight programs, and an increase in available weapons stations



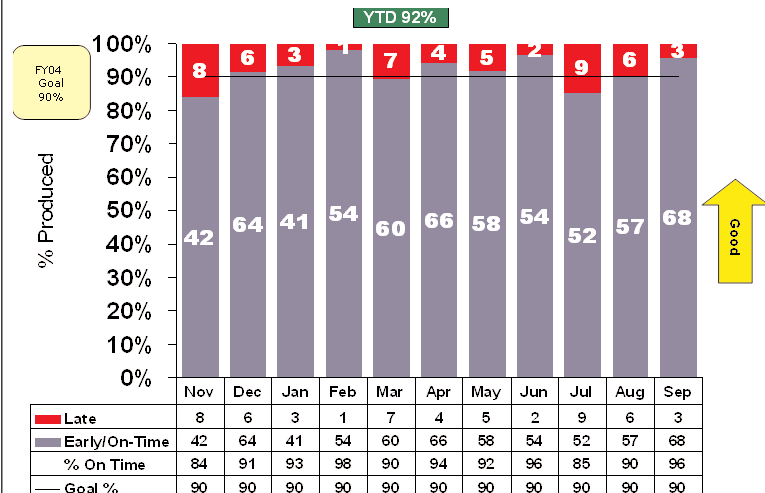
SUSTAIN

Goal: Develop, Field, and **SUSTAIN** war-winning expeditionary capabilities on time, on cost

Our Accomplishments

- ◆ Highest ever aircraft due date performance — 92% on-time
- ◆ Beat scheduled aircraft production — 589 required, 597 delivered
- ◆ Met engine production goal — 406 required, 406 delivered
- ◆ More “Iron” on the ramp — 144 fewer aircraft in depot maintenance
- ◆ Maintained quality while producing more — 0.3 defects per aircraft
- ◆ MICAP (Aircraft not-available due to critical parts) hours at all time low — 19% reduction
- ◆ Customer Wait Time (CWT) decreasing — 10% better than FY03
- ◆ Total Non-Mission Capable due to Supply (TNMCS) rate — below 10%
- ◆ Depot Maintenance Activity Group (DMAG) — achieved best Net Operating Result in 10 years

Organic Aircraft Due Date Performance



AFMC's Depots delivered the best ever aircraft due date performance. Depot Maintenance Transformation is helping us “Lean” our work and improve our performance for the warfighter. This chart shows aircraft production for fiscal year 2004. The black line represents AFMC's goal of 90% early or on time, and it cuts across the percentages for each month. The red lines and numbers represent aircraft produced late.



CLSS specialists repaired damaged wing and engine (AF photos)

Vector Check: C-5 Battle Damage Repair

When the largest aircraft in the Air Force inventory was damaged during a hostile attack shortly after takeoff in Iraq on January 8, 2004, the Air Force called on AFMC to help restore its war-winning capabilities. Thirteen C-5 Aircraft Battle Damage Repair (ABDR) specialists from Warner-Robins Air Logistics Center, GA, arrived in Baghdad to help make the necessary repairs just 48 hours after the aircraft declared an in-flight emergency.

Following the temporary repairs of the damaged C-5, the aircraft was flown to Robins. Upon arrival, C-5 production branch workers took over and made permanent repairs to return the aircraft to Air Mobility Command.

The work on the battle-damaged aircraft did not interrupt

normally scheduled work, said Al Hainse, C-5 production manager. “It was civil-service and active-duty [people] working side by side not only to get this aircraft back to AMC on time, but two days early.”

The workers were enthusiastic about the aircraft, said David Johnson, a C-5 planner. “Working on something that was actually in battle brought out their pride,” he said. “They were interested in getting it back to the warfighter as soon as possible.” With the large troop rotation planned in the near future, it was important to have the plane completed and back to AMC as soon as possible, Mr. Johnson said. The aircraft left Robins on February 23rd — two days ahead of schedule.

CAREER

Goal: Provide opportunities for **CAREER** development and progression

Our Accomplishments

- ◆ Web-based mentoring program — Air Force civilians, officers, and enlisted personnel participate as a protégé, mentor, or both; provides the opportunity for employees to receive one-on-one assistance with workplace issues, work performance, and career development
- ◆ Established National Security Personnel System (NSPS) transition office at HQ AFMC — facilitates NSPS deployment across AFMC
- ◆ Began Force Development initiative — bringing AFMC the right people at the right place and right time
- ◆ Commissioned Junior Force Study — AFMC vice commander briefed results to all AFMC centers — implementation of action plan underway across the Command
- ◆ Career Opportunities — secured AF approval for AF civilians to serve as wing, group, and squadron directors in our newly restructured Product and Air Logistics Centers



Master Sgt. Nancy Martin mentors Staff Sgt. Josie Reyes-Smith on enlisted force issues. Mentorship is an important part of career development and progression. (AF photo by Tech. Sgt. Jim Varhegyi)

— Junior Force Study Action Plan —

- ◆ Institutionalize Junior Force Council Across AFMC
 - ◆ Define Career Paths/Progression
 - ◆ Build a Mentoring Culture
 - ◆ Provide Supervisory Tools
 - ◆ Strengthen Feedback
 - ◆ Energize Recognition Efforts
 - ◆ Improve Communication

Vector Check: Junior Force Study

Leadership responded when the biennial Air Force Climate Survey showed room for improvement in the morale of AFMC's junior workforce. Gen. Gregory S. Martin, AFMC commander, sent Mr. Ray Pelletier of the Pelletier Group out early this year to conduct a series of intensive fact-finding sessions throughout the Command.

The resulting Junior Force Study 2004, titled *The Next Greatest Generation*, focused on AFMC's junior enlisted people, junior Air Force civilians, and company grade officers. It was designed to gain insight on a cross-section of this segment of the Command so AFMC leaders can better lead, coach, and train them, and better incorporate

their skills and ideas.

The study had two primary functions: focus on how the junior force feels regarding the work they do; and make recommendations on how to improve their morale and increase retention.

"I asked the study participants to provide the Pelletier Group with honest, unvarnished opinions and observations about their concerns and their ideas as part of the Air Force and AFMC, and they delivered," General Martin said.

"The whole Air Force rides on the backs of the men and women of AFMC," General Martin continued. "The work that you do powers the greatest Air and Space Force in history with ingenuity, technology and sustainment. But often-times, I don't think we get the

thanks or respect that we deserve for our efforts. This study gives us that impression as well."

Under General Martin's guidance, Command leaders formed a team to combine the results of the Junior Force Study with those from the Air Force Climate Survey. This information was used to develop an action plan designed to provide better opportunities throughout the Command.

"We must work together as the top leadership of today and tomorrow. I am calling on you to make a positive difference for the future," General Martin said. "I'm counting on each of you to work with me to improve the development of our junior force members — they are our future."

INSTALLATIONS

Goal: Operate quality **INSTALLATIONS**

Our Accomplishments

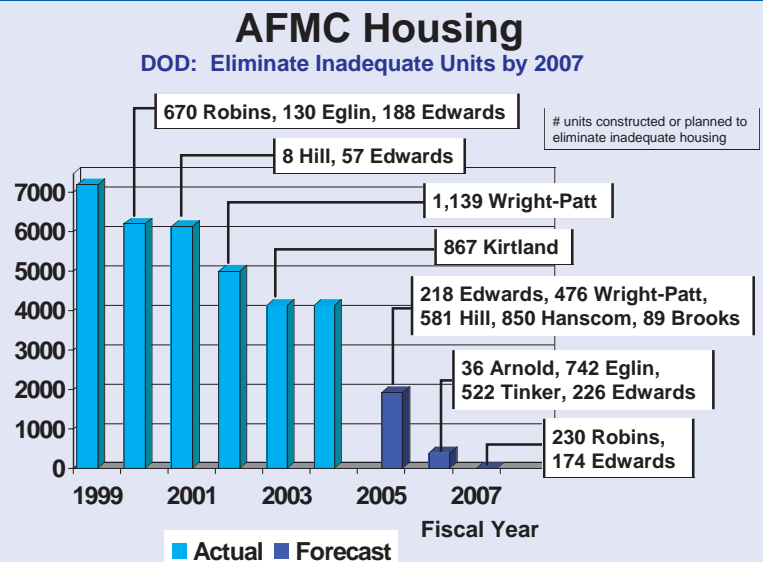
- ◆ Housing — AFMC is determined to eliminate inadequate housing and is #1 in AF housing privatization — 3,500 units under contract now; 3,300 more ready to go. AFMC will have all privatization contracts in place by the end of FY07
- ◆ Fitness — with fitness center usage up 16% in FY 04, our units responded by increasing strength, cardio, and flexibility class offerings by 76%
- ◆ Developed long-term beddown plans for AFMC's Ground Combat Training School — AFMC Security Forces readiness rates up from 35% to 100%
- ◆ Launched a computer network pilot that is expected to increase network availability to 99.999% — AFMC's people can work with confidence, knowing they'll have their data when needed
- ◆ AFMC Morale, Welfare, and Recreation (MWR) fund rated #1 in AF — generated \$5 million for quality of life programs
- ◆ Recognized leader in AF environmental programs — earned top honors in Environmental Protection Magazine facilities of the year competition

AFMC is leading the way in improving family housing. The DoD goal is to eliminate inadequate housing units by 2007. This important initiative will improve the quality of life for AFMC's people.



Tech. Sgt. Jay Huey, a reservist from the 95th Security Forces Squadron at Edwards Air Force Base, CA, stands ready at the M-60 machine gun mounted atop a humvee at the Edwards South Gate. (AF photo by Master Sgt. Stefanie Doner)

Vector Check: Privatized Housing



WORKFORCE

Goal: Sustain a healthy, fit, safe, and ready **WORKFORCE**

Our Accomplishments

- ◆ Deployed over 3,600 AFMC personnel in support of AF operations worldwide — increased combat effectiveness
- ◆ Enhanced Organizational Health Centers to deliver organizational development solutions — enabled a healthier and more productive workforce at each major installation
- ◆ Air Logistics Centers implemented fitness programs for their AF civilian workforce — increased physical, mental, spiritual, and nutritional wellness
- ◆ 81% of AFMC Airmen passed the AF fitness test — 15% rated in the Excellent, or top, category

Vector Check: Air Force Civilians Earn Goal Days

This year, for the first time ever, all Airmen, including Air Force civilians within Air Force Materiel Command, began earning time off for meeting tough organizational goals and standards. This policy awards time off without having to use annual leave.

Until now, only military members were permitted to take time off when AFMC commanders approved a goal day.

Gen. Gregory S. Martin, AFMC commander, strongly backed the initiative by writing directly to the Air Force vice chief of staff, who approved his request.

General Martin authorized his commanders up to four goal days annually to reward their Air Force civilian and military personnel with time off for meeting high mission and performance criteria.

AFMC is Fit to Fight



Master Sgt. Michael Moss, Eglin AFB, FL, prepares for the Air Force Fit to Fight fitness test. Air Force Materiel Command leads the way in Fit to Fight performance. Eighty-one percent of our personnel have passed the Fit to Fight test, the second highest Major Command pass rate in the Air Force. Fifteen percent of our personnel received an excellent rating, again the second highest in the Air Force. Overall, 76% of our personnel have passed with either an excellent or good score, the highest results of any Major Command. We are a Fit to Fight workforce! (AF Photo by Staff Sgt. Robert Zoellner)

AFMC Holds Wingman Days

Air Force Materiel Command installations conducted

Wingman Days to focus on unit accomplishments, stress, support services,

and the importance of being good Wingmen. The philosophy of Gen. Gregory S. Martin, AFMC commander, is: **“Be a good Wingman, build good Wingmen.”**



“In the end, Wingman Day is all about the value of life ... and the value of our people.”

WHERE WE'RE HEADED

Once again, I am proud to represent in this publication the many achievements of the men and women assigned to AFMC! Each and every day I see their magnificent efforts in keeping AFMC at the forefront of everything happening across our Air Force.

As we strive to achieve even greater heights of excellence in our day-to-day work, we must also focus on the future. The best way to do that is to start with the desired end state as your target. Let me outline that target in the next couple of pages.

It is important to note that the challenges faced by our nation's military forces in previous decades are completely different than those of today. We no longer find ourselves face-to-face with another global "superpower."

Instead, we find ourselves with the prospect of engaging enemies using unique techniques in uncommon and multiple locations around the globe.

We're encountering enemies that utilize urban terrorist tactics with weaponry such as mobile surface-to-air missiles and maneuvering small-unit ground forces quickly to avoid detection. Today's enemies are light, but lethal and have the potential to possess weapons of mass destruction. They have initiated attacks on our military forces as well as innocent civilians. They seemingly have no respect for life and will do anything in their power to harm Americans. Therefore, the conditions for military success have changed, and as such the needs of our military must change as well.

AFMC serves a key role in our future



Maj. Chris Holinger tracks a mission inside the Combined Air Operations Center at a forward-deployed base. Spanning nearly 30,000 square feet, the CAOC is the nerve center for all combined air operations. With crews operating around the clock, CAOC officials plan, control and track all coalition missions throughout the region. They also direct time-sensitive targeting, battlefield coordination, theater missile defense, joint search and rescue, special operations support and other mission critical operations. (Photo by Royal Air Force Sgt. Gareth Davies)

ability to combat these new threats. The Air Force has given much thought to this problem and believes there are tremendous opportunities to transform warfare this decade in what are considered the pillars of defining battlespace awareness:

◆ Unprecedented Survivable

Endurance — we need battlespace knowledge and awareness at the touch of a screen. We've used the Predator and Global Hawk to great advantage in obtaining battlespace knowledge, but those weapon systems are only effective when we own the airspace in which they operate. Hence the need for "Survivable Endurance."

◆ Unprecedented Battlespace

Visualization — we need real-time, understandable, decision-quality information available to leaders at all levels — animated in such a way as seen in Hollywood movies or in current video games so our decision makers can see the battlespace and understand it immediately without having to accomplish the mental gymnastics of integrating several digital images.

◆ **Unprecedented Speed** — we need to achieve desired effects in near-real-time through presence at or near the battlespace and/or with technologies such as hypersonics, directed energy, or space



Connectivity	Hypersonics	Directed Energy
<ul style="list-style-type: none"> Machine to Machine Machine to Decision Makers Decision Makers to Weapon Systems 	<ul style="list-style-type: none"> Hypersonic Platforms <ul style="list-style-type: none"> Captive Carry: 26 Jan 04 Separation Success: 16 Nov 04 (Mach 9.8 @ 7000 MPH) Hypersonic Missiles <ul style="list-style-type: none"> One Time of Flight \approx 60 Seconds Mach 9.6 Above 36,000 Feet Standoff 100+ Miles 	<ul style="list-style-type: none"> Lethal <ul style="list-style-type: none"> Airborne Space Based Non-Lethal <ul style="list-style-type: none"> High Powered Microwave 

kinetics.

Our Chief of Staff addresses the above needs in what he calls his three coalescing constructs:

♦ **Persistence** — the ability to “stare” from whatever sensor, platform, or combination of platforms we designate. In order to achieve persistence, we need Unprecedented Survivable Endurance — through a combination of air, near-space, and space sensors that are survivable and interconnected.

♦ **Cursor Over the Target** — the ability to select specific targets of interest — not necessarily to eliminate them, but possibly to learn more about them in anticipation of future action. The operation may involve a rescue versus a combat situation. Persistence gives a Commander good information on which to make a decision. But in order to achieve Cursor Over the Target, we need Unprecedented Battlespace Visualization, which requires connectivity — machine to machine,

machine to decision makers, decision makers to weapon systems.

♦ **One Time of Flight** — the ability to strike a target in 60 seconds or less. Persistence and Cursor Over the Target give us the information and capability to strike quickly, but we still have to get the weapon to the target. Technologies like hypersonics, directed energy, and space kinetics can make up for a lack of immediate presence in the target area.

Only AFMC can address these needs and together with our acquisition partners and industry teams make our Chief’s coalescing constructs a reality! In the process, we must also show operators in the field “the art of the possible.” It’s something we don’t do as well as we could today, but we’ll begin to improve upon very soon.

While we focus on this important work in defining the future of warfare, we must also stay focused on our many other responsibilities — those of today and

those of the future. Whether it’s developing the Battlefield Air Operations Kit, producing the Joint Direct Attack Munition and the Small Diameter Bomb, testing and fielding the F/A-22 Raptor, or transitioning the AC-130U Gunship and the F-16 to the Air Logistics Centers for sustainment, our Command is at the forefront and will remain at the forefront. We must ensure we achieve the desired end-state in line with our Chief’s coalescing constructs.

Future success will depend on our AFMC people. They will rise to the occasion as always. I have complete faith in their ability to deliver war-winning capabilities ... on time, on cost!

Gregory S. Martin

GREGORY S. MARTIN
General, USAF
Commander



The YAL-1A Airborne Laser conducts an extended flight test over the range at Edwards AFB. (AF photo)

